

Name: ID:

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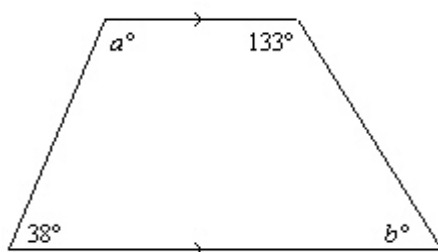
Test Chapter 6

Multiple Choice

Identify the choice that best completes the statement or answers the question.



1 Find the values of a and b . The diagram is not to scale.



A $a = 133, b = 47$

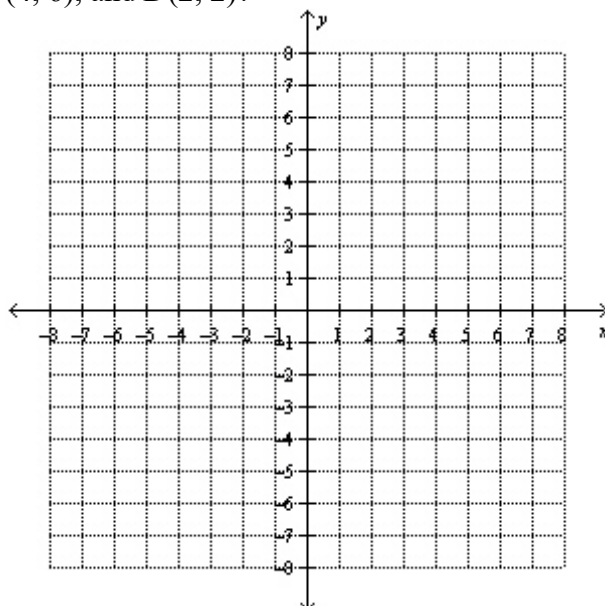
B $a = 133, b = 38$

C $a = 142, b = 47$

D $a = 142, b = 38$



2 What is the most precise name for quadrilateral $ABCD$ with vertices $A(-3, 2)$, $B(-1, 6)$, $C(4, 6)$, and $D(2, 2)$?



A quadrilateral

B rhombus

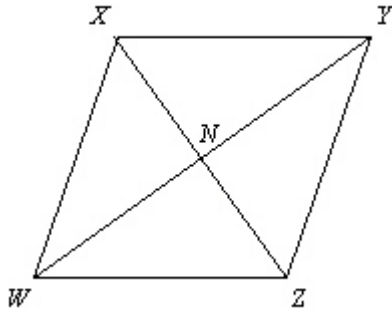
C rectangle

D parallelogram



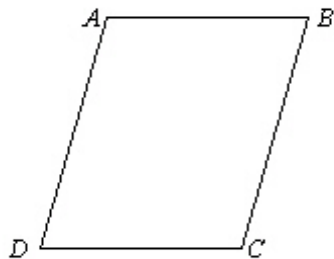
3

$WXYZ$ is a parallelogram. Name an angle congruent to $\angle WXY$.



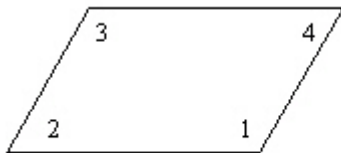
- A $\angle WZY$ B $\angle YZX$ C $\angle WZX$ D $\angle XYZ$

4 $ABCD$ is a parallelogram. If $m\angle CDA = 82$, then $m\angle DAB = \underline{\hspace{1cm}}$. The diagram is not to scale.



- A 98 B 164 C 82 D 108

5 For the parallelogram, if $m\angle 2 = 4x - 30$ and $m\angle 4 = 3x - 12$, find $m\angle 3$. The diagram is not to scale.



- A 138 B 42 C 148 D 18

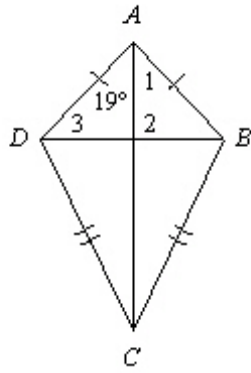
6 $\angle J$ and $\angle M$ are base angles of isosceles trapezoid $JKLM$. If $m\angle J = 20x + 6$, and $m\angle M = 14x + 12$, find $m\angle K$.



- A 1 B 77 C 26 D 154

7 Find $m\angle 1$ and $m\angle 3$ in the kite. The diagram is not to scale.





A 19, 71

B 71, 19

C 71, 71

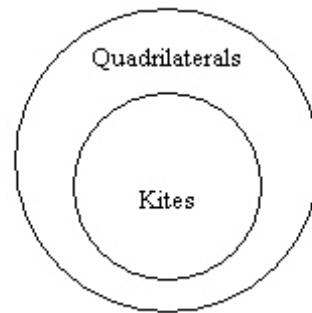
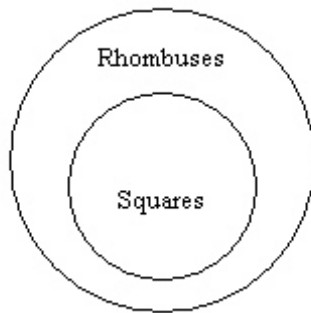
D 19, 19

8 Which Venn diagram is NOT correct?



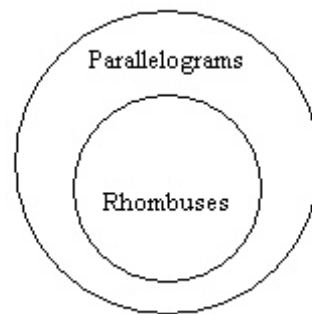
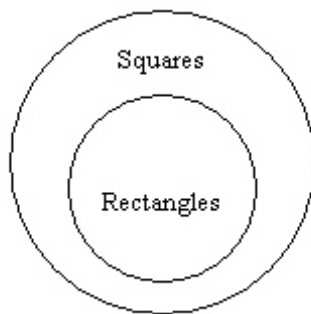
A

C



B

D



9 $DEFG$ is a rectangle. $DF = 5x - 4$ and $EG = x + 12$. Find the value of x and the length of each diagonal.



A $x = 2$, $DF = 14$, $EG = 14$

C $x = 4$, $DF = 16$, $EG = 18$

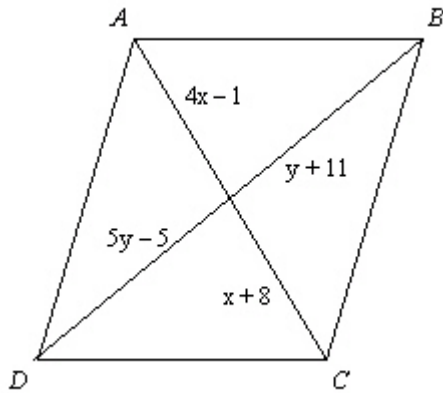
B $x = 4$, $DF = 14$, $EG = 14$

D $x = 4$, $DF = 16$, $EG = 16$



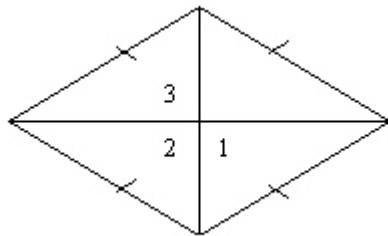
10

Find values of x and y for which $ABCD$ must be a parallelogram. The diagram is not to scale.



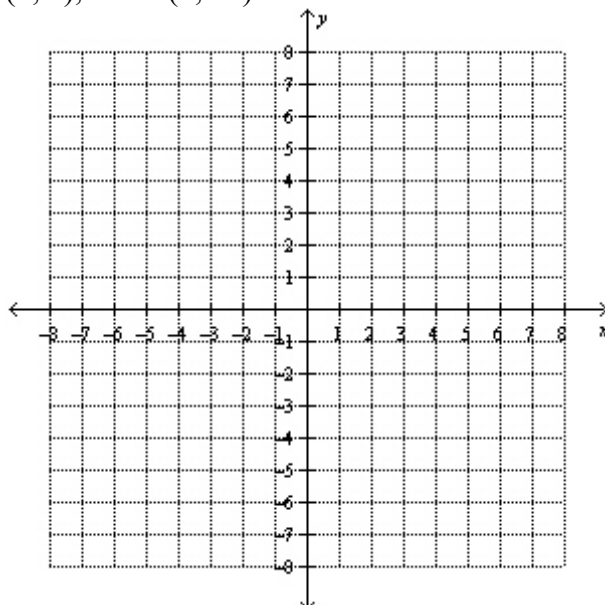
- A $x = 3, y = 4$ B $x = 3, y = 15$ C $x = 3, y = 11$ D $x = 4, y = 3$

- 11 In the rhombus, $m\angle 1 = 30x$, $m\angle 2 = x + y$, and $m\angle 3 = 30z$. Find the value of each variable.
The diagram is not to scale.



- A $x = 3, y = 87, z = 10$ C $x = 6, y = 87, z = 20$
B $x = 6, y = 177, z = 10$ D $x = 3, y = 177, z = 20$

- 12 What is the most precise name for quadrilateral $ABCD$ with vertices $A(-2, -2)$, $B(-2, 2)$, $C(2, 2)$, and $D(2, -2)$?



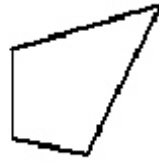
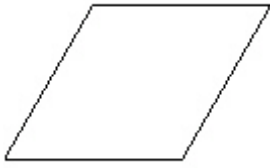
- A rhombus B quadrilateral C rectangle D parallelogram

13 Judging by appearances, which figure is a trapezoid?



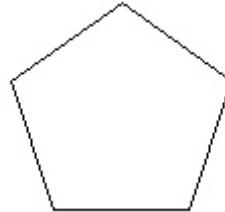
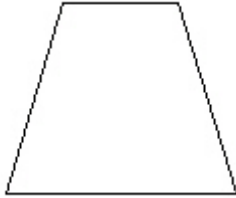
A

C

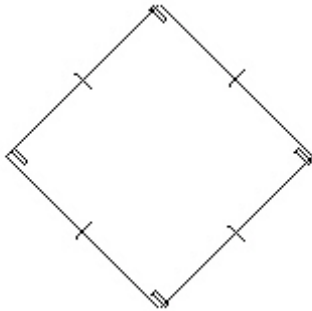


B

D



14 Judging by appearance, classify the figure in as many ways as possible.



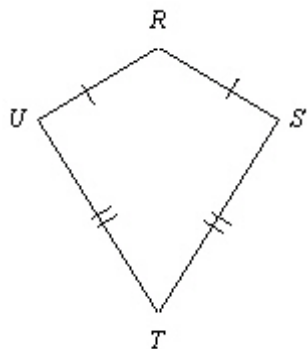
A rectangle, square, quadrilateral, parallelogram, rhombus

B rectangle, square, parallelogram

C rhombus, trapezoid, quadrilateral, square

D square, rectangle, quadrilateral

15 $m\angle R = 160$ and $m\angle S = 90$. Find $m\angle T$. The diagram is not to scale.



A 10

B 20

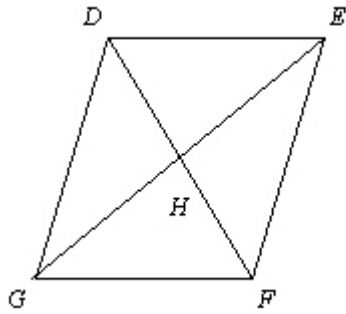
C 80

D 90



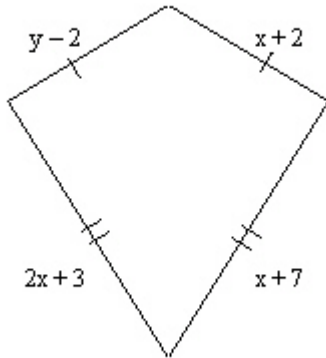
16

In parallelogram $DEFG$, $DH = x + 4$, $HF = 4y$, $GH = 4x - 3$, and $HE = 5y + 3$. Find the values of x and y . The diagram is not to scale.



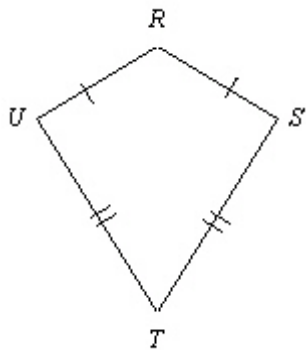
- A $x = 3, y = 8$ B $x = 8, y = 3$ C $x = 4, y = 2$ D $x = 2, y = 4$

17 Find the values of the variables and the lengths of the sides of this kite.



- A $x = 4, y = 8; 6, 11$ C $x = 8, y = 4; 6, 6$
 B $x = 8, y = 4; 2, 10$ D $x = 4, y = 8; 2, 10$

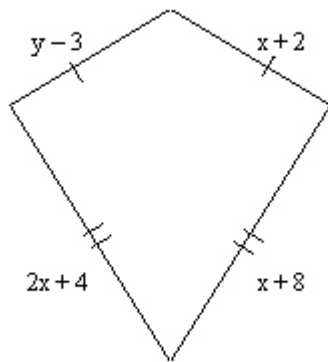
18 $m\angle R = 120$ and $m\angle S = 110$. Find $m\angle T$. The diagram is not to scale.



- A 110 B 20 C 10 D 60

19

Find the values of the variables and the lengths of the sides of this kite.



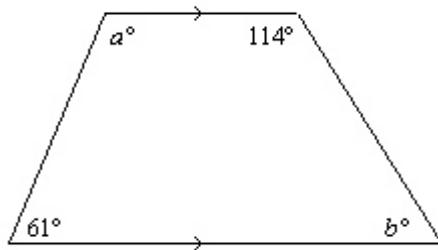
A $x=9, y=4; 1, 11$

C $x=4, y=9; 6, 12$

B $x=9, y=4; 6, 6$

D $x=4, y=9; 1, 11$

20 Find the values of a and b . The diagram is not to scale.



A $a = 119, b = 66$

C $a = 114, b = 66$

B $a = 119, b = 61$

D $a = 114, b = 61$

21 Which statement is true?



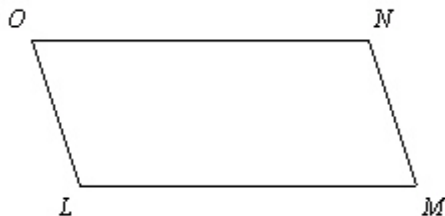
A All rectangles are squares.

B All parallelograms are rectangles.

C All quadrilaterals are rectangles.

D All squares are rectangles.

22 $LMNO$ is a parallelogram. If $NM = x + 27$ and $OL = 5x + 3$ find the value of x and then find NM and OL .



A $x = 6, NM = 35, OL = 33$

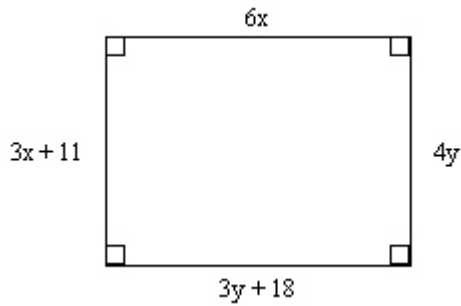
C $x = 8, NM = 35, OL = 35$

B $x = 8, NM = 33, OL = 35$

D $x = 6, NM = 33, OL = 33$

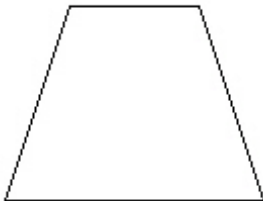
Short Answer

Find the values of the variables and the lengths of the sides of this rectangle. The diagram is not to scale.

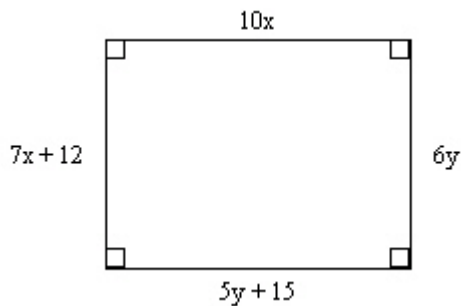


- 24 Isosceles trapezoid $ABCD$ has legs \overline{AB} and \overline{CD} , and base \overline{BC} . If $AB = 7y - 7$, $BC = 2y - 3$, and $CD = 8y - 18$, find the value of y .

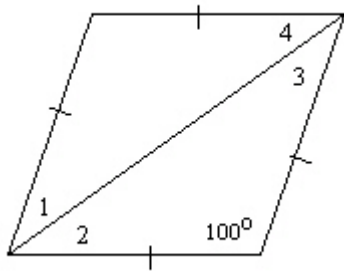
- 25 Judging by appearance, classify the figure in as many ways as possible using *rectangle*, *trapezoid*, *square*, *quadrilateral*, *parallelogram*, *rhombus*.




- 26 **EC:** Find the values of the variables and the lengths of the sides of this rectangle. The diagram is not to scale.



27 **EC:** Give the name that best describes the parallelogram and find the measures of the numbered angles. The diagram is not to scale.



 **Grade & Submit**

 **Start Over**